In the Claims

Please amend claims 1-5, 11, 26, 66, 68, 70, and 71 as indicated.

Please cancel claim 14 without prejudice or disclaimer.

Please add new claims 78-95.

1. (currently amended) A method for inducing an antigen-specific immune response, comprising:

administering to a subject a CpG oligonucleotide ~~wherein the CpG oligonucleotide includes at least 8 nucleotides~~, and

exposing the subject to an antigen ~~at least~~ 3 to 30 days after the CpG oligonucleotide is administered to the subject, wherein the antigen is selected from the group consisting of cell extracts, proteins, polysaccharides, polysaccharide conjugates, lipids, glycolipids, carbohydrate, viral extracts, and allergens, to produce an antigen-specific immune response.

2. (currently amended) The method of claim 1, wherein the ~~antigen~~ exposing is ~~administered at least~~ 4 to 30 days after the CpG oligonucleotide is administered to the subject.

3. (currently amended) The method of claim 1, wherein the ~~antigen~~ exposing is ~~administered at least~~ 7 to 30 days after the CpG oligonucleotide is administered to the subject.

4. (currently amended) The method of claim 1, wherein the ~~antigen~~ exposing is ~~administered at least~~ 15 to 30 days after the CpG oligonucleotide is administered to the subject.

5. (currently amended) The method of claim 1, wherein the ~~antigen~~ exposing is ~~administered at least~~ 30 days after the CpG oligonucleotide is administered to the subject.

6. (previously presented) The method of claim 1, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

7. (previously presented) The method of claim 1, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

8. (original) The method of claim 7, wherein the phosphate backbone modification occurs at the 5' end of the oligonucleotide.

9. (original) The method of claim 7, wherein the phosphate backbone modification occurs at the 3' end of the oligonucleotide.

10. (previously presented) The method of claim 1, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $X_1X_2CGX_3X_4$ 3'

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

11. (currently amended) The method of claim 1, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $TCNTX_1X_2CGX_3X_4$ 3' (SEQ ID NO:89)

wherein X_1, X_2, X_3, and X_4 are nucleotides[[,]] and N is a nucleic acid sequence composed of from about 0-25 nucleotides.

12. (previously presented) The method of claim 11, wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

13. (original) The method of claim 1, wherein the antigen is a nucleic acid encoding an antigen.

14. (canceled)

15. (original) The method of claim 1, wherein the antigen is an allergen.

16. (original) The method of claim 1, wherein the antigen is derived from an infectious organism selected from the group consisting of infectious bacteria, infectious viruses, and infectious fungi.

17. (original) The method of claim 1, wherein the subject is actively exposed to the antigen.

18. (original) The method of claim 17, wherein the antigen is delivered in conjunction with a colloidal dispersion system.

19. (original) The method of claim 18, wherein the colloidal dispersion system is selected from the group consisting of macromolecular complexes, nanocapsules, microspheres, beads, and lipid-based systems.

20. (original) The method of claim 19, wherein the lipid-based system is selected from the group consisting of oil-in-water emulsions, micelles, mixed micelles, and liposomes.

21. (original) The method of claim 17, further comprising the step of administering an adjuvant in conjunction with the antigen.

22. (original) The method of claim 1, wherein the subject is passively exposed to the antigen.

23. (original) The method of claim 22, wherein the subject is a subject at risk of developing cancer.

24. (original) The method of claim 22, wherein the subject is at risk of developing an allergic reaction.

25. (original) The method of claim 22, wherein the subject is an asthmatic.

26. (currently amended) The method of claim 1, wherein the [[antigen specific]] antigen-specific immune response[[s]] is a Th1 type immune response.

27. (previously presented) A method for increasing platelet counts in a subject having thrombocytopenia, comprising:

administering to a subject having (non-chemotherapeutic induced) thrombocytopenia a CpG oligonucleotide wherein the CpG oligonucleotide includes at least 8 nucleotides, in an amount effective to increase platelet counts in the subject.

28. (previously presented) The method of claim 27 wherein the CpG oligonucleotide is administered in an amount effective to increase platelet counts in the subject by at least 10,000 platelets per microliter.

29. (previously presented) The method of claim 27 wherein the CpG oligonucleotide is administered in an amount effective to increase platelet counts in the subject by at least 20,000 platelets per microliter.

30. (previously presented) The method of claim 27 wherein the CpG oligonucleotide is administered to the subject in an amount effective to increase the platelet counts in the subject by 100 percent.

31. (original) The method of claim 27 wherein the thrombocytopenia is a drug-induced thrombocytopenia.

32. (original) The method of claim 27 wherein the thrombocytopenia is due to an autoimmune disorder such as idiopathic thrombocytopenic purpura.

33. (original) The method of claim 27 wherein the thrombocytopenia is a thrombocytopenia resulting from accidental radiation exposure.

34. (original) The method of claim 27 wherein the thrombocytopenia is a thrombocytopenia resulting from therapeutic radiation exposure.

35. (previously presented) The method of claim 27, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

36. (previously presented) The method of claim 27, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

37. (original) The method of claim 36, wherein the phosphate backbone modification occurs at the 5' end of the oligonucleotide.

38. (original) The method of claim 36, wherein the phosphate backbone modification occurs at the 3' end of the oligonucleotide.

39. (previously presented) The method of claim 27, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $X_1X_2CGX_3X_4$ 3'

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

40. (previously presented) The method of claim 27, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $TCNTX_1X_2CGX_3X_4$ 3' (SEQ ID NO:89)

wherein X_1, X_2, X_3, and X_4 are nucleotides, N is a nucleic acid sequence composed of from about 0-25 nucleotides.

41. (previously presented) The method of claim 40, wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

42.-50. (canceled)

51. (previously presented) A method for treating anemia, comprising:

administering to a subject having anemia a CpG oligonucleotide wherein the CpG oligonucleotide includes at least 8 nucleotides, in an amount effective to induce erythropoiesis in the subject.

52. (previously presented) The method of claim 51 wherein the CpG oligonucleotide is administered in an amount effective to increase erythroblast counts in the subject by at least 10 percent.

53. (previously presented) The method of claim 51 wherein the CpG oligonucleotide is administered in an amount effective to increase erythroblast counts in the subject by at least 20 percent.

54. (previously presented) The method of claim 51 wherein the CpG oligonucleotide is administered to the subject in an amount effective to increase erythroblast counts in the subject by 100 percent.

55. (original) The method of claim 51 wherein the anemia is a drug-induced anemia.

56. (original) The method of claim 51 wherein the anemia is selected from the group consisting of an immunohemolytic disorder, genetic disorders such as hemoglobinopathy and inherited hemolytic anemia; inadequate production despite adequate iron stores; chronic disease such as kidney failure; and chronic inflammatory disorder such as rheumatoid arthritis.

57. (previously presented) The method of claim 51, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

58. (previously presented) The method of claim 51, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

59. (original) The method of claim 58, wherein the phosphate backbone modification occurs at the 5' end of the oligonucleotide.

60. (original) The method of claim 58, wherein the phosphate backbone modification occurs at the 3' end of the oligonucleotide.

61. (previously presented) The method of claim 51, wherein the CpG oligonucleotide has a sequence including at least the following formula:

$$5' X_1X_2CGX_3X_4 3'$$

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

62. (previously presented) The method of claim 51, wherein the CpG oligonucleotide has a sequence including at least the following formula:

$$5' TCNTX_1X_2CGX_3X_4 3' \quad \text{(SEQ ID NO:89)}$$

wherein X_1, X_2, X_3, and X_4 are nucleotides, N is a nucleic acid sequence composed of from about 0-25 nucleotides.

63. (previously presented) The method of claim 62, wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

64. (original) The method of claim 51 wherein the anemia is an anemia resulting from accidental radiation exposure.

65. (original) The method of claim 51 wherein the anemia is an anemia resulting from therapeutic radiation exposure.

66. (currently amended) A method for inducing an antigen-specific immune response, comprising:

administering to a nonhuman vertebrate a CpG oligonucleotide~~, wherein the CpG oligonucleotide includes at least 8 nucleotides~~, and

exposing the nonhuman vertebrate to an antigen ~~at least~~ 3 to 30 days after the CpG oligonucleotide is administered to the nonhuman vertebrate, wherein the antigen is selected from the group consisting of cell extracts, proteins, polysaccharides, polysaccharide conjugates, lipids, glycolipids, carbohydrate, viral extracts, and allergens, to produce an antigen-specific immune response.

67. (previously presented) The method of claim 66, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $X_1X_2CGX_3X_4$ 3'

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

68. (currently amended) The method of claim 66, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $TCNTX_1X_2CGX_3X_4$ 3' (SEQ ID NO:89)

wherein X_1, X_2, X_3, and X_4 are nucleotides[[,]] and N is a nucleic acid sequence composed of from about 0-25 nucleotides.

69. (previously presented) The method of claim 66, wherein the nonhuman vertebrate is selected from the group consisting of a dog, cat, horse, cow, pig, sheep, goat, chicken, monkey, and fish.

70. (currently amended) The method of claim 66, wherein the ~~antigen~~ exposing is ~~administered at least~~ 15 to 30 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

71. (currently amended) The method of claim 66, wherein the ~~antigen~~ exposing is ~~administered at least~~ 30 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

72. (previously presented) The method of claim 66, wherein the antigen is derived from a microorganism selected from the group consisting of herpesviridae, retroviridae, orthomyxoviridae, *Toxoplasma*, *Haemophilus*, *Campylobacter*, *Clostridium*, *E. coli*, and *Staphylococcus*.

73. (previously presented) A method for increasing platelet counts in a nonhuman vertebrate having thrombocytopenia, comprising:

administering to a nonhuman vertebrate having thrombocytopenia a CpG oligonucleotide, wherein the CpG oligonucleotide includes at least 8 nucleotides, in an amount effective to increase platelet counts in the nonhuman vertebrate.

74. (previously presented) The method of claim 73, wherein the nonhuman vertebrate is a dog.

75.-77. (canceled)

78. (new) The method of claim 1, wherein the exposing is 3 to 7 days after the CpG oligonucleotide is administered to the subject.

79. (new) The method of claim 1, wherein the exposing is 3 days after the CpG oligonucleotide is administered to the subject.

80. (new) The method of claim 1, wherein the exposing is 4 days after the CpG oligonucleotide is administered to the subject.

81. (new) The method of claim 1, wherein the exposing is 5 days after the CpG oligonucleotide is administered to the subject.

82. (new) The method of claim 1, wherein the exposing is 6 days after the CpG oligonucleotide is administered to the subject.

83. (new) The method of claim 1, wherein the exposing is 7 days after the CpG oligonucleotide is administered to the subject.

84. (new) The method of claim 1, wherein the exposing comprises administration of the antigen to the subject by a route selected from intravenous, intramuscular, oral, transdermal, mucosal, intranasal, intratracheal, and subcutaneous.

85. (new) The method of claim 1, wherein the exposing comprises intranasal administration of the antigen to the subject.

86. (new) The method of claim 85, wherein the exposing is 3 to 7 days after the CpG oligonucleotide is administered to the subject.

87. (new) The method of claim 85 or claim 86, wherein the antigen is a microbial antigen, an allergen, or a cancer antigen.

88. (new) The method of claim 85 or claim 86, wherein the antigen is derived from an infectious organism selected from the group consisting of infectious bacteria, infectious viruses, and infectious fungi.

89. (new) The method of claim 85 or claim 86, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

90. (new) The method of claim 66, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

91. (new) The method of claim 66, wherein the exposing is 3 to 7 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

92. (new) The method of claim 66, wherein the exposing is 3 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

93. (new) The method of claim 66, wherein the exposing is 4 to 30 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

94. (new) The method of claim 66, wherein the exposing is 4 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

95. (new) The method of claim 66, wherein the exposing is 5 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

96. (new) The method of claim 66, wherein the exposing is 6 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

97. (new) The method of claim 66, wherein the exposing is 7 to 30 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

98. (new) The method of claim 66, wherein the exposing is 7 days after the CpG oligonucleotide is administered to the nonhuman vertebrate.

99. (new) The method of claim 66, wherein the exposing comprises intranasal administration of the antigen to the subject.

100. (new) The method of claim 99, wherein the exposing is 3 to 7 days after the CpG oligonucleotide is administered to the subject.

101. (new) The method of claim 99 or claim 100, wherein the antigen is a microbial antigen, an allergen, or a cancer antigen.

102. (new) The method of claim 99 or claim 100, wherein the antigen is derived from an infectious organism selected from the group consisting of infectious bacteria, infectious viruses, and infectious fungi.

103. (new) The method of claim 99 or claim 100, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.